

CLAIM AMENDMENTS

1-15. (Cancelled)

16. (Currently Amended) A medical lead, comprising:

a resilient, hollow tubular membrane structure having a normally non-circular cross-sectional shape configured to be collapsed into a compact form in response to a compressive force, and configured to be expanded into a crescent cross-sectional shape in the absence of a compressive force; and

at least one electrode associated with the tubular structure.

17. (Currently Amended) The medical lead of claim 16, wherein the tubular structure comprises a discrete resilient spring element configured for expanding the tubular structure into the crescent cross-sectional shape.

18. (Currently Amended) The medical lead of claim 16, wherein the tubular structure comprises a resilient mesh or braid configured for expanding the tubular structure into the crescent cross-sectional shape.

19. (Cancelled)

20. (Currently Amended) The medical lead of claim 16, wherein the tubular structure is configured to be collapsed into a ~~the~~ compact form for percutaneous delivery into a patient.

21. (Currently Amended) The medical lead of claim 16, wherein the tubular structure is sized to fit snugly within the epidural space of a patient when expanded into the non-circular cross-sectional shape.

22-27. (Cancelled)

28. (New) The medical lead of claim 16, wherein the electrode is disposed on an outer surface of the tubular structure.

29. (New) The medical lead of claim 16, wherein the tubular structure has a wall thickness of within the range of 0.1 mm to 2 mm.

30. (New) The medical lead of claim 16, wherein the tubular structure has a wall thickness of 1 mm or less.

31. (New) A method of performing a medical procedure on a patient, comprising:
collapsing the medical lead of claim 16 by applying a compressive force to the medical lead;
percutaneously delivering the collapsed medical lead into the patient adjacent tissue to be treated; and
expanding the medical lead to anchor the medical lead within the patient.

32. (New) The method of claim 31, wherein the collapsed medical lead is percutaneously delivered within an epidural space of the patient, and expanded to anchor the medical lead within the epidural space.

33. (New) The method of claim 31, further comprising stimulating the tissue with the medical lead.

34. (New) The method of claim 33, wherein the tissue is spinal cord tissue.

35. (New) A medical lead, comprising:
a flaccid electrically insulative tubular membrane;
a resilient spring element associated with the tubular membrane, the resilient spring element configured to expand the tubular membrane into a non-circular cross-sectional shape in the absence of a compressive force; and

at least one electrode associated with the tubular membrane.

36. (New) The medical lead of claim 35, wherein the spring element comprises a discrete resilient spring element.

37. (New) The medical lead of claim 35, wherein the spring element comprises a resilient mesh or braid.

38. (New) The medical lead of claim 35, wherein the resilient element allows the tubular structure to be collapsed into a compact form in the presence of a compressive force for percutaneous delivery into a patient.

39. (New) The medical lead of claim 35, wherein the tubular membrane is sized to fit snugly within the epidural space of a patient when expanded into the non-circular cross-sectional shape.

40. (New) The medical lead of claim 35, wherein the non-circular shape is a rectangle.

41. (New) The medical lead of claim 35, wherein the non-circular shape is an oval.

42. (New) The medical lead of claim 35, wherein the non-circular shape is a crescent.

43. (New) The medical lead of claim 35, wherein the electrode is disposed on an outer surface of the tubular membrane.

44. (New) The medical element of claim 35, wherein the spring element is disposed on an outer surface of the tubular membrane in an laminar relationship.

45. (New) A method of performing a medical procedure on a patient, comprising:
collapsing the medical lead of claim 35 by applying a compressive force to the medical lead;
percutaneously delivering the collapsed medical lead into the patient adjacent tissue to be treated; and

expanding the medical lead to anchor the medical lead within the patient.

46. (New) The method of claim 45, wherein the collapsed medical lead is percutaneously delivered within an epidural space of the patient, and expanded to anchor the medical lead within the epidural space.

47. (New) The method of claim 45, further comprising stimulating the tissue with the medical lead.

48. (New) The method of claim 47, wherein the tissue is spinal cord tissue.